

REMARKS

Claims 1-33 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection in view of the remarks contained herein.

CLAIM OBJECTIONS

Claims 10-17 stand objected to because of an informality. Claim 10, line 1 was previously amended in Applicants' communication dated July 6, 2006. The previous communication amended claim 10 to recite – "to support a first structure." Applicants respectfully request reconsideration of the claims and withdrawal of the objection in view of this previous amendment.

REJECTION UNDER 35 U.S.C. § 112

Claims 1-17, and 25-33 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

Independent Claims 1, 10, and 25 are Definite in view of the Specification

The claims 1, 10, and 25 use the term "continuously" to relate the modular stanchions to the top surface of the pallet base. To wit, "a plurality of modular stanchions that are adhesively secured to said pallet base and that are continuously selectively positionable along x and y axes relative to a top surface of said pallet base."

As disclosed in paragraphs [0024] and [0041], the modular stanchions are adjustable to support various product types. The modular stanchions can be positioned along x and y axes and also along a z axis transverse to the x and y axes. For example, the modular stanchions can be arranged in a first configuration to support one engine type for assembly in the assembly line, and can be reconfigured in a second configuration to accommodate a second engine type or another product altogether.

Figures 3 and 5 illustrate a view of a pallet base 22, showing the x and y axes and modular stanchions 24. Thus, as the specification expressly refers to the stanchions as selectively positionable along the x and y axis, it is clear that these stanchions can be moved to any point within the confines of the pallet base. There are no discrete openings, bus interfaces, unique addresses, vacuum or air supply line connections, or registers to which the stanchions are restricted. Therefore, as shown in the figures and described in the specification, the stanchions are continuously selectively positionable along x and y axes; i.e., the stanchions can be moved to any configuration on the pallet base, continuously from small changes in their x and y positions, to large changes in their x and y positions, limited only by the size of the pallet base 22.

It is well settled that the “language of the claims, read in light of the specification” is to be considered when determining whether the claims are definite. Allen Archery Inc. v. Browning Mfg. Co., 819 F.2d 1087 (Fed. Cir. 1987). Consequently, Applicant submits the use of “continuously” in terms of “continuously selectively positionable” in the aforementioned claims is clear as expressly and inherently disclosed in the present application.

Independent Claims 1, 10, and 25 are Clear when viewed by a Skilled Artisan

The rejection has failed to establish that one of ordinary skill in the art, when reading the claim in light of the specification, would not have been able to ascertain with a reasonable degree of precision and particularity the specific area set out and circumscribed by the claim. Ex parte Wu, 10 USPQ2d 2031, 2033 (B.P.A.I. 1989); In re Moore, 439 F.2d 1232 (C.C.P.A. 1971).

A skilled artisan, in view of the present specification, would find it readily apparent that the modular stanchions are “continuously selectively positionable” along the top surface of the pallet base. There are no specific sites that the stanchions need to be plugged into or connected with; they can be adhesively secured at any point continuous from the minimum x and y values to the maximum x and y values for a given pallet base, where a pair of x and y values is a position. Since the full range of x and y values are available to adhesively secure a stanchion, a skilled artisan appreciates that the stanchions are continuously positionable within this range.

Independent Claims 1, 10, and 25 are Reasonably Defined

“Continuously selectively positionable” comports with the usual and ordinary definitions of these words and is clear in view of the specification, as described above. The present specification discloses how the stanchion and pallet base structures are functionally related within the aforementioned paragraphs and figures. The claim language embodies this functional relationship using the phrase “continuously selectively positionable.”

It is well established that functional limitations may be used in claims and that such limitations are not per se indefinite. Thus, although specific attachment positions (i.e., specific x and y values) for the stanchions to the pallet base are not recited, the range of attachment positions is definite (i.e., a plurality of modular stanchions that are adhesively secured to said pallet base and that are continuously selectively positionable along x and y axes relative to a top surface of said pallet base) as the stanchions can be placed anywhere continuously throughout the available x and y axes. Recitation of particular positions is not necessary as it is clear that the stanchions can be placed continuously throughout the x and y axes. Furthermore, the claims positively recite that the plurality of modular stanchions are adhesively secured to said pallet base, whereas the terms in issue simply describe the range of permissible positions.

It should be noted that claim language such as “members adapted to be positioned” and “slidably positioned” have been held to be definite. In re Venezia, 530 F.2d 956 (C.C.P.A. 1976). Moreover, over one-hundred thousand issued patents contain the term “continuously” in their claims for relating or describing various features.

In conclusion, since the meaning of “continuously” is readily apparent in view of the specification and in view of a skilled artisan, Applicant respectfully submits independent claims 1, 10, and 25 and their corresponding dependent claims are not indefinite. Reconsideration of the claims and withdrawal of the rejection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103 – SODERBERG

Claims 1-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Soderberg et al. (U.S. Pat. No. 5,722,646). This rejection is respectfully traversed.

The Examiner's attention is directed to independent claims 1, 10, and 25. The present invention is not obvious in view of the Soderberg reference because the reference fails to include all the claim limitations of the present invention, and further, does not provide the skilled artisan with the suggestion or motivation to re-engineer the reference to create the present invention. In particular, a skilled artisan would not re-engineer the Soderberg flexible tooling apparatus to recreate the present invention because doing so would destroy the function and design goals of the Soderberg apparatus.

First, Soderberg does not contain stanchions that are continuously selectively positionable along x and y axes relative to a top surface of the pallet base as is claimed in each of the independent claims of the instant application. The nearly infinite number of adjustable positions of the stanchions in the present invention is one distinguishing feature in comparison to the Soderberg reference. For example, the stanchions of the present invention can be adhesively secured at any point continuous from the minimum x and y values to the maximum x and y values for a given pallet base, where a pair of x and y values is a position. Since the full range of x and y values are available to adhesively secure a stanchion, stanchions can be moved, positioned, and/or re-positioned very small distances or large distances within the x and y axes ranges. Put another way, the stanchions can be placed at all values from minimum x and y to maximum x and y, as determined by the pallet base.

In addition, Applicants redirect the Examiner's attention to the previous remarks traversing the 112 rejection in the present reply. "Continuously selectively positionable" provides all the necessary structural limitations for a skilled artisan to clearly appreciate and practice the claims in issue. Recitation of particular positions is not necessary as it is clear that the stanchions can be placed continuously throughout the x and y axes. Furthermore, the claims positively recite that the plurality of modular stanchions are adhesively secured to said pallet base. Thus, a skilled artisan readily recognizes that the stanchions are adhesively secured to the base, but they can be secured in positions that are continuously selectively positionable thereon.

An example is illustrated in Figures 2 and 3, showing an embodiment of the present invention with an arrangement of stanchions. The stanchions shown could be adhesively secured anywhere along the top surface (in the x and y axes) of the pallet base. There are no additional constraints regarding the orientation and position of the stanchions relative to the base or each other.

In contradistinction, the tooling apparatus of Soderberg has an actuator mechanism that is received by a discrete number of receiving positions (i.e., apertures) in a support table. That is, the Soderberg disclosure expressly limits the location of an actuator mechanism to the defined aperture in the support table, which is unlike the stanchions of the present invention that can be selectively positioned and adhesively secured anywhere along the x and y axes of the top surface of the pallet.

Thus, to function, the Soderberg actuators *must* be located within an aperture on the support table. In this regard, the Soderberg apertures contain the pneumatic supply and addressable bus interconnection to control the actuators. Consequently, the

actuators in Soderberg are constrained and arranged in a spaced relation as mounted in the apertures in the table portion. Col. 3, lines 17-20; see also Soderberg Figures 1 and 2. And each actuator unit is adapted for insertion and removal *only* at these individual sites on the table. Col. 8, lines 60-64.

Specifically, the actuators of Soderberg can only be placed in uniquely addressed positions so that the vacuum and air supply lines can the bus interface can be connected to each actuator. For example, FIG. 1 of Soderberg shows an apparatus with 7 x 9 openings to accept actuators. Consequently, as shown, Soderberg can only place actuators at the 63 positions and cannot continuously selectively position the actuators. The Soderberg actuators are restricted to the discrete locations of the air and vacuum and bus interface connections. They are fixed in the 7 x 9 grid of openings, whereas the stanchions of the present invention can be moved to all positions continuous from minimum x and y values to maximum x and y values.

Hence, the present invention cannot be obvious in view of Soderberg reference due to the absence of adhesively secured stanchions that are continuously selectively positionable along x and y axes relative to the top surface of the pallet base. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991) (The prior art reference must teach or suggest all the claim limitations.).

Furthermore, the Soderberg reference does not suggest nor would it motivate the skilled artisan to make the Soderberg actuators adhesively secured to the table top. The Soderberg actuators are necessarily restricted to the locations of the apertures, for the apertures provide the vacuum and air supply lines as well as a bus or network interface for controlling the actuators. Col. 1, lines 52-55. And each aperture position

has a unique address. Col. 1, lines 55-62; Col. 11, line 16. Thus, the dynamic tooling system of Soderberg would be inoperable if the actuators were made adhesively securable and continuously selectively positionable along x and y axes. A skilled artisan would not re-engineer the Soderberg reference to make the actuators adhesively secured as this would entail forsaking and destroying the connections of the actuators to the air and vacuum lines and the bus interface for controlling the actuators. Such re-engineering would therefore defeat the operation and goal of the Soderberg apparatus. The Soderberg actuators must be fitted within an aperture defined on the table surface to interface with actuator control commands.


The present invention, therefore, cannot be obvious in view of the reference. In re Ratti, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959) If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. Thus, the combination of Soderberg with the alleged well known equivalent securing means (adhesive) presented in the Office Action cannot render the present invention obvious since the combination is contrary to the teachings and operation of Soderberg. McGinley v. Franklin Sports Inc., 262 F.3d 1339, 60 USPQ2d 1001, 1010 (Fed.Cir. 2001) "If references taken in combination would produce a 'seemingly inoperative device,' we have held that such references teach away from the combination and thus cannot serve as predicates for a prima facie case of obviousness."

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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